

Hands-On UNIX System Administration | *Syllabus*

Computer Science 98/198 — Spring 2012

Time and Place	Monday 6–8PM, 273 Soda Hall CCNs: 26480 (lower-div), 26702 (upper-div)
Facilitators	Jordan Salter (jordan.salter@berkeley.edu) Dara Adib (daradib+decal@ocf.berkeley.edu) Felix Wong (waf@berkeley.edu)
Office Hours	<i>by appointment</i>
Course Website	http://decal.ocf.berkeley.edu/
Instructor of Record	Brian Harvey (bh@cs), 781 Soda

Course Description

The course will cover the setup and administration of a production-quality Unix server, suitable for web/mail hosting, shared shell hosting à la the EECS Instructional servers, and the like. Topics include general Unix proficiency (which is also useful in CS courses), the Internet infrastructure, and system administration essentials.

The Hands-On UNIX System Administration DeCal, or the “Sysadmin DeCal” if you prefer something more manageable, is a lecture/lab course targeted towards CS students, either with some prior Unix experience or an eager ability to learn new things quickly. (No prior Unix experience is assumed, but we will get you up to speed fast!) As an important skill in system administration is the ability to learn about new and unfamiliar technologies, this class will provide a foundational understanding of Unix and send you exploring uncharted territories in weekly labs and the open-ended final project.

Course Goals

After completing the Sysadmin DeCal, students will be able to set up and maintain their own general-purpose server. The course culminates in a final project, requiring students to collaborate in groups of 3–4 people to develop a system demonstrating that they can integrate many disparate software components into a single coherent unit.

Grading (Or: Menacing Stuff We Need To Say)

This course will be graded on a Passed/Not Passed basis. To earn a ‘Pass’ grade, students must submit laboratory reports

for all assigned laboratories and complete a final project. Attendance is mandatory. Up to two laboratories may be dropped; the final project may not be dropped. More than two unexcused absences or failure to complete the final project **will result in an automatic NP!**

Tentative Schedule

Since this is a lecture/lab-based course, we won’t be assigning additional readings. The following is a rough list of topics we plan to cover, each with an associated lab assignment — suggestions are welcome, and if there’s anything you’d like to hear about, let us know!

Week	Topics
1	$\frac{1}{23}$ Course overview; introduction to UNIX and the shell
2	$\frac{1}{30}$ The file system
3	$\frac{2}{6}$ Multi-user environments
4	$\frac{2}{13}$ Compiling software; package managers
5	$\frac{2}{20}$ <i>Academic holiday</i>
6	$\frac{2}{27}$ Shell scripting
7	$\frac{3}{5}$ Tricks of the trade
8	$\frac{3}{12}$ Server services
9	$\frac{3}{19}$ Server services, cont’d
10	$\frac{3}{26}$ <i>Spring break</i>
11	$\frac{4}{2}$ When disaster strikes
12	$\frac{4}{9}$ Special topics
13	$\frac{4}{16}$ Wrap up final projects
14	$\frac{4}{23}$ Final project presentations!